

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

SECTION SF 30 - BLOCK 14 CONTINUATION PAGE

The following have been added by full text:

CONTINUATION PAGE

1. Due Date for Receipt of proposals is hereby extended to **20 April 2004** no later than 2:00 p.m.

2. **SF 1442**, Block 10 is corrected to read: NAICS CODE is 237990

3. **Section 00600**: Clause 52.219-1 Small Business Program Representations is hereby changed as follows:

(a) (1) NAICS Code for this acquisition is 237990 Other Heavy and Civil Engineering Construction

(2) The small business size standard is \$28.5 million.

4. **Section 00800**: Clause E4LC26 Small Business Standard for Dredging is hereby deleted.

5. Technical Specifications are changed in accordance with the following:

a) Plant Operating Contractor, ATK will remove existing sludge. The sludge is not hazardous. There is no underdrain system in the lagoon

b) During testing of the basin, test water can be discharged into the river through the process stream diffuser structure when necessary, provided:

nothing has been introduced into the test water (whether purposely or not) that would require treatment prior to discharge.

The water meets PH criteria for discharge to the river.

c) The final test water can be left in the new basin following any repairs and successful completion of testing. The water will be discharged when normal process flow is introduced into the system by the plant operating contractor, ATK.

6. Settling Basin Boring Logs are provided as attachments to this amendment.

(End of Summary of Changes)

| DRILLING LOG | | DIVISION NAO | | INSTALLATION RADFORD ARMY AMMUNITION PLANT | | SHEET 1 OF 1 SHEETS | |
|--|------------|-----------------|---|---|------------------------|---|--|
| 1. PROJECT HAZ SLUDGE HANDLING BASIN | | | | 10. SIZE AND TYPE OF BIT 3 1/4" ID HSA | | | |
| 2. LOCATION (Coordinates or Station) RADFORD, VIRGINIA | | | | 11. DATUM FOR ELEVATION SHOWN (TBM or MSL) | | | |
| 3. DRILLING AGENCY FROEHLING & ROBERTSON | | | | 12. MANUFACTURER'S DESIGNATION OF DRILL CME 55 | | | |
| 4. HOLE NO. (As shown on drawing title and file number) 119DH-1 | | | | 13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN | | DISTURBED UNDISTURBED | |
| 5. NAME OF DRILLER ROBERT BAKER | | | | 14. TOTAL NUMBER CORE BOXES | | | |
| 6. DIRECTION OF HOLE <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED --- DEG. FROM VERT. | | | | 15. ELEVATION GROUND WATER | | 16. DATE HOLE STARTED 11/17/2001 COMPLETED 11/17/2001 | |
| 7. THICKNESS OF OVERBURDEN | | | | 17. ELEVATION TOP OF HOLE | | | |
| 8. DEPTH DRILLED INTO ROCK | | | | 18. TOTAL CORE RECOVERY FOR BORING % | | | |
| 9. TOTAL DEPTH OF HOLE 28.0 | | | | 19. GEOLOGIST RANDALL C. BORN, P.E. | | | |
| ELEVATION a | DEPTH b | LEGEND c | CLASSIFICATION OF MATERIALS (Description) d | % CORE RECOVERY e | BOX OR SAMPLE NO. f | REMARKS (Drilling time, water loss, depth weathering, etc., if significant) g | |
| | 1.0 | | 1/2" to 2" size stone | | | | |
| | 5.0 | | sand, greenish-tan, dry to moist, medium to coarse (likely fill) | 10"/18" | S-1 3.5 5.0 | 4-4-4 (N=8) | |
| | | | (SP), fine SAND with silt, brown, dry, little mica present | | | | |
| | | | | 14"/18" | S-2 8.5 10.0 | 2-3-3 (N=6) | |
| | | | | 18"/18" | S-3 13.5 15.0 | 3-4-3 (N=7) | |
| | 19.0 | | same as above, but wet | | | | |
| | | | (SP), SAND, brown, wet Moderately weathered bedrock encountered. Spoon refusal at 19' | | S-4 18.5 20.0 | 18-50/3"- Hard drilling 19'-20', broke through. Hard seam 22'-23' and 24'-25' | |
| | 25.0 | | | | | | |
| | | | (SC), sandy CLAY, gray, moist to wet, severely weathered bedrock with mica. | | | | |
| | 28.0 | | | | S-5 26.5 28.0 | Sample from auger cuttings at 27' Auger siezed up at 28' | |
| | | | Bottom of Hole at 28' water on rod at 13' water in auger at 28' Caved in at 11' after pulling augers | | | | |

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| 2. LOCATION (Coordinates or Station) RADFORD, VIRGINIA | | | | 11. DATUM FOR ELEVATION SHOWN (TBM or MSL) | | | |
| 3. DRILLING AGENCY FROEHLING & ROBERTSON | | | | 12. MANUFACTURER'S DESIGNATION OF DRILL CME 55 | | | |
| 4. HOLE NO. (As shown on drawing title and file number) 119DH-6 | | | | 13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN | | DISTURBED UNDISTURBED | |
| 5. NAME OF DRILLER ROBERT BAKER | | | | 14. TOTAL NUMBER CORE BOXES | | | |
| 6. DIRECTION OF HOLE <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED --- DEG. FROM VERT. | | | | 15. ELEVATION GROUND WATER | | 16. DATE HOLE STARTED 11/18/2001 COMPLETED 11/18/2001 | |
| 7. THICKNESS OF OVERBURDEN | | | | 17. ELEVATION TOP OF HOLE | | | |
| 8. DEPTH DRILLED INTO ROCK | | | | 18. TOTAL CORE RECOVERY FOR BORING % | | | |
| 9. TOTAL DEPTH OF HOLE 18.0 | | | | 19. GEOLOGIST RANDALL C. BORN, P.E. | | | |
| ELEVATION a | DEPTH b | LEGEND c | CLASSIFICATION OF MATERIALS (Description) d | % CORE RECOVERY e | BOX OR SAMPLE NO. f | REMARKS (Drilling time, water loss, depth weathering, etc., if significant) g | |
| | 1.0 | | Brush and stones to 6" | | | | |
| | 5.0 | | (SM) Fine silty sand with mica, brown, dry to moist | 12"/18" | S-1 3.5 5.0 | 4-4-8 (N=12) | |
| | 6.5 | | (BLDRCBBL) Cobbles and Boulders with Clayey sand matrix | | | Note: Hard drilling on cobbles and boulders 5' to 6.5'. Auger refusal at 6.5', moved 10' to the east. Drilled fairly easily down to 5', auger refusal once again. Moved 15' to the east to approximate edge of gravel road. | |
| | 8.0 | | same as above | | | | |
| | | | (SP-SM) Fine sand with silt and clay, mica, brown, moist | 4"/18" | S-2 8.5 10.0 | 8-9-10 (N=19) Hard drilling through layers of stone | |
| | | | (SP-SM) Same as above, but fine to medium sand with little clay | 2"/18" | S-3 13.5 15.0 | 2-2-1 (N=3) Hard drilling at 16', possible bedrock Spoon bouncing at 18' | |
| | | | (SP-SM) Same as above, but moist to wet (BEDROCK), Refusal at 18' | | | Note: Tip of spoon and auger are dry. | |
| | 18.0 | | Bottom of Hole at 18' | | | | |

| | | | | | | | |
|--|--|-----------------|--|---|--|--|--|
| DRILLING LOG | | DIVISION NAO | | INSTALLATION RADFORD ARMY AMMUNITION PLANT | | SHEET 1 OF 1 SHEETS | |
| 1. PROJECT HAZ SLUDGE HANDLING BASIN | | | | 10. SIZE AND TYPE OF BIT 3 1/4" ID HSSA | | | |
| 2. LOCATION (Coordinates or Station) RADFORD, VIRGINIA | | | | 11. DATUM FOR ELEVATION SHOWN (TBM or MSL) | | | |
| 3. DRILLING AGENCY FROEHLING & ROBERTSON | | | | 12. MANUFACTURER'S DESIGNATION OF DRILL CME 55 | | | |
| 4. HOLE NO. (As shown on drawing title and file number) | | 119DH-5 | | 13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN | | DISTURBED UNDISTURBED | |
| 5. NAME OF DRILLER ROBERT BAKER | | | | 14. TOTAL NUMBER CORE BOXES | | | |
| 6. DIRECTION OF HOLE <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED --- DEG. FROM VERT. | | | | 15. ELEVATION GROUND WATER | | 16. DATE HOLE STARTED 11/18/2001 COMPLETED 11/18/2001 | |
| 7. THICKNESS OF OVERBURDEN | | | | 17. ELEVATION TOP OF HOLE | | | |
| 8. DEPTH DRILLED INTO ROCK | | | | 18. TOTAL CORE RECOVERY FOR BORING % | | | |
| 9. TOTAL DEPTH OF HOLE 5.5 | | | | 19. GEOLOGIST RANDALL C. BORN, P.E. | | | |

| ELEVATION a | DEPTH b | LEGEND c | CLASSIFICATION OF MATERIALS (Description) d | % CORE RECOVERY e | BOX OR SAMPLE NO. f | REMARKS (Drilling time, water loss, depth weathering, etc., if significant) g |
|----------------|------------|-------------|---|----------------------|------------------------|--|
| | 1.0 | | Brush & Stone to 6" | | 0.0 | Drilled through stones and fill to 3.5' |
| | 4.0 | | (SP) Fine to medium sand with silt, brown, dry to moist | | 1.5 | |
| | 5.5 | | Cobbles & Boulders, and sand from 4' to 5.5' | | S-1 3.5 5.0 | |
| | | | Bottom of Hole at 5.5' Refusal at 5.5' | | | 10-18-24 (N=42) Auger Refusal at 4.5' moved 5' to the west Refusal at 5.5' moved 12' to the west Refusal at 5.5' Note: The boring attempts were made on a "flat" shelf, built to the basin side of the southerly berm and road. Estimated depth of fill is 8' to 10'. Top of shelf is 6' to 8' below berm. |

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| 2. LOCATION (Coordinates or Station) RADFORD, VIRGINIA | | | | 11. DATUM FOR ELEVATION SHOWN (TBM or MSL) | | | |
| 3. DRILLING AGENCY FROEHLING & ROBERTSON | | | | 12. MANUFACTURER'S DESIGNATION OF DRILL CME 55 | | | |
| 4. HOLE NO. (As shown on drawing title and file number) 119DH-4 | | | | 13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN | | DISTURBED UNDISTURBED | |
| 5. NAME OF DRILLER ROBERT BAKER | | | | 14. TOTAL NUMBER CORE BOXES | | | |
| 6. DIRECTION OF HOLE <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED --- DEG. FROM VERT. | | | | 16. DATE HOLE 11/17/2001 | | 15. ELEVATION GROUND WATER STARTED COMPLETED 11/17/2001 | |
| 7. THICKNESS OF OVERBURDEN | | | | 17. ELEVATION TOP OF HOLE | | | |
| 8. DEPTH DRILLED INTO ROCK | | | | 18. TOTAL CORE RECOVERY FOR BORING % | | | |
| 9. TOTAL DEPTH OF HOLE 12.5 | | | | 19. GEOLOGIST RANDALL C. BORN, P.E. | | | |
| ELEVATION a | DEPTH b | LEGEND c | CLASSIFICATION OF MATERIALS (Description) d | % CORE RECOVERY e | BOX OR SAMPLE NO. f | REMARKS (Drilling time, water loss, depth weathering, etc., if significant) g | |
| | 0.0 | | Clay with gravel and cobbles to 3' | | | | |
| | 3.0 | | | 14"/18" | S-1 2.0 3.5 | 7-9-6 (N=15) Auger Refusal at 2' offset 6' to the north | |
| | 5.0 | | (SC-GC) Clay with gravel, little sand (fill), mica, brown, moist | | | | |
| | 10.0 | | (SP) Fine sand with silt, brown, dry to moist | | | | |
| | 12.5 | | (BLDRCBBL) Boulders and Cobbles (likely Rip-Rap fill) | 8"/12" | S-2 11.0 12.5 | 7-9-13 (N=22) pieces of stone in spoon at 10' Cobbles from 10' to 12' Auger Refusal at 12.5' | |
| | | | Bottom of Hole at 12.5' | | | | |

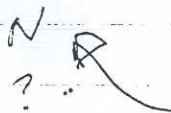
| DRILLING LOG | | DIVISION NAO | | INSTALLATION RADFORD ARMY AMMUNITION PLANT | | SHEET 1 OF 1 SHEETS | |
|--|------------|-----------------|---|---|------------------------|--|--|
| 1. PROJECT HAZ SLUDGE HANDLING BASIN | | | | 10. SIZE AND TYPE OF BIT 3 1/4 " ID HSA | | | |
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| 3. DRILLING AGENCY FROEHLING & ROBERTSON | | | | 12. MANUFACTURER'S DESIGNATION OF DRILL CME 55 | | | |
| 4. HOLE NO. (As shown on drawing title and file number) 119DH-3 | | | | 13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN | | DISTURBED UNDISTURBED | |
| 5. NAME OF DRILLER ROBERT BAKER | | | | 14. TOTAL NUMBER CORE BOXES | | | |
| 6. DIRECTION OF HOLE <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED _____ DEG. FROM VERT. | | | | 16. DATE HOLE 11/17/2001 | | STARTED COMPLETED 11/18/2001 | |
| 7. THICKNESS OF OVERBURDEN | | | | 17. ELEVATION TOP OF HOLE | | | |
| 8. DEPTH DRILLED INTO ROCK | | | | 18. TOTAL CORE RECOVERY FOR BORING % | | | |
| 9. TOTAL DEPTH OF HOLE 20.0 | | | | 19. GEOLOGIST RANDALL C. BORN, P.E. | | | |
| ELEVATION a | DEPTH b | LEGEND c | CLASSIFICATION OF MATERIALS (Description) d | % CORE RECOVERY e | BOX OR SAMPLE NO. f | REMARKS (Drilling time, water loss, depth weathering, etc., if significant) g | |
| | 1.0 | | Gravel Road surface | | | | |
| | | | (SC) Clayey fine sand with mica (fill), brown, dry | 12"/18" | S-1 3.5 5.0 | 5-7-8 (N=15) Auger Refusal at 4.3', moved 6' to the east | |
| | 7.0 | | (SP) Fine sand with little silt and mica, brown, moist | 18"/18" | S-2 8.5 10.0 | 4-4-6 (N=10) | |
| | | | (SP) same as above, except medium to fine sand, saturated | 12"/18" | S-3 13.5 15.0 | 3-4-6 (N=10) | |
| | | | (SP) medium sand | | S-4 18.5 20.0 | At 18.5', sand ran up into auger, drove spoon into column to collect sample, but did not monitor blow counts | |
| | 20.0 | | Bottom of Hole at 20' water on rod at 12' | | | | |

| | | | | | |
|--|--|-----------------|---|--|--|
| DRILLING LOG | | DIVISION NAO | INSTALLATION RADFORD ARMY AMMUNITION PLANT | | SHEET 1 OF 1 SHEETS |
| 1. PROJECT HAZ SLUDGE HANDLING BASIN | | | 10. SIZE AND TYPE OF BIT 3 1/4" ID HSA | | |
| 2. LOCATION (Coordinates or Station) RADFORD, VIRGINIA | | | 11. DATUM FOR ELEVATION SHOWN (TBM or MSL) | | |
| 3. DRILLING AGENCY FROEHLING & ROBERTSON | | | 12. MANUFACTURER'S DESIGNATION OF DRILL CME 55 | | |
| 4. HOLE NO. (As shown on drawing title and file number) 119DH-2 | | | 13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN | | DISTURBED UNDISTURBED |
| 5. NAME OF DRILLER ROBERT BAKER | | | 14. TOTAL NUMBER CORE BOXES | | |
| 6. DIRECTION OF HOLE <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED --- DEG. FROM VERT. | | | 15. ELEVATION GROUND WATER | | |
| 7. THICKNESS OF OVERBURDEN | | | 16. DATE HOLE | | STARTED 11/17/2001 COMPLETED 11/17/2001 |
| 8. DEPTH DRILLED INTO ROCK | | | 17. ELEVATION TOP OF HOLE | | |
| 9. TOTAL DEPTH OF HOLE 20.5 | | | 18. TOTAL CORE RECOVERY FOR BORING % | | |
| | | | 19. GEOLOGIST RANDALL C. BORN, P.E. | | |

| ELEVATION a | DEPTH b | LEGEND c | CLASSIFICATION OF MATERIALS (Description) d | % CORE RECOVERY e | BOX OR SAMPLE NO. f | REMARKS (Drilling time, water loss, depth weathering, etc., if significant) g |
|----------------|------------|-------------|--|----------------------|------------------------|---|
| | 0.0 | | Stone road from surface to 15" | | | |
| | 1.5 | | | | | |
| | 5.0 | | (CL) Clay with gravel and sand, brownish-red, dry (fill) | 8"/12" | S-1 3.5 5.0 | 8-7-10/0" (N=17) Auger refusal at 5', moved 6' to the east |
| | | | (SP) Fine to medium sand with silt and mica, brown, dry | 14"/18" | S-2 8.5 10.0 | 4-5-8 (N=13) |
| | | | | | | Note: Clayey sand in auger cuttings between S-2 and S-3 |
| | | | (SP) same as above, but wet | 18"/18" | S-3 13.5 15.0 | 2-2-3 (N=5) |
| | 20.0 | | (SP) coarse sand | 14"/18" | S-4 18.5 20.0 | 24-11-10 (N=21) Note: S-4 collected from about 19' to 20.5' (ran up into auger when plug was pulled) |
| | 20.5 | | (GW-SP) coarse sand and gravel | | | |
| | | | Bottom of hole at 20.5' water on rod at 13' water at 17.5' inside auger sand and gravel at 18.5' inside auger | | | |

RAAP Hat. Sledge Basin

Nov 01



New River

DH-1 \oplus
(staked)

DH-2 \oplus
(staked)

DH-3 \oplus
(staked)

Paint Ground

\oplus DH-5a

\oplus DH-6b

\oplus DH-6a

\oplus DH-5a (staked)

\oplus DH-5b

\oplus DH-5c

Painted log

$\oplus \oplus$ DH-7a
+b